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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,364	03/16/2004	Shafiq M. Jamal	MP0430	3795
26200	7590	08/18/2005	EXAMINER	
FISH & RICHARDSON P.C. P.O BOX 1022 MINNEAPOLIS, MN 55440-1022			ZWEIZIG, JEFFERY SHAWN	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,364

Applicant(s)

JAMAL ET AL.

Examiner

Jeffrey S. Zweizig

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-7,9-16,21-23,26-33,38-40,42-62,67-69,72-76,78,80,82-84 and 86 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-7,9-16,21-23,26-33,38-40,42-62,67-69,72-76,78,80,82-84 and 86 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/5/05
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 56 and 69 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification vaguely alludes to utilizing the present invention to provide a reference voltage to an Ethernet transceiver. The specification is completely silent as to how or why one would utilize the present invention in conjunction with an oscillator to provide a frequency to an Ethernet transceiver as indicated in claims 56 and 69. There is no technical support for claims 56 and 69. Claims 56 and 69 are not properly enabled.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5, 13-16, 21, 30-33, 38 and 46-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 defines an "output voltage" twice. One occurrence appears to be associated with the charge pump while the other appears to be associated with the load output, however, the claim should be written more clearly.

Claims 14, 21 and 38 have the same problem.

Claims 13-16 are seen to impose improper negative limitations on claims 9 and 11. Claims 9 and 11 are seen to define a circuit wherein multiple charge pumps commonly feed a lone current mirror. Claim 13 is seen to disconnect all but one charge pump from the lone current mirror to accommodate multiple additional respective current mirrors. Claims 13-16 are indefinite.

Claims 30-33 and 46-49 have the same problem.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 5-7, 21-23 and 38-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Kwon (6,856,204).

Figs. 4 and 5 disclose a charge pump 421, a current mirror 441/451, a filter 431 and a load 551/411 with regulation loop all functioning to suppress noise as recited in claim 5.

Component 411 is a reference voltage generator as recited in claim 6. Claim 6 is otherwise rejected for the reasons above.

Component 551 is a VCO as recited in claim 7. Claim 7 is otherwise anticipated for the reasons above.

Claims 21, 22 and 23 are anticipated for the reasons above.

The disclosed components perform the methods recited in claims 38, 39 and 40.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 9-16, 26-33, 42-49, 50-62, 67-69, 72-76, 78, 80, 82-84 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon in view of Javanifard et al. (5,767,735).

Kwon does not appear to disclose multiple charge pumps as recited in claim 9. However, those of ordinary skill in the art know that multiple charge pumps can be employed to increase the overall current or voltage output from the charge pump circuit.

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Javanifard et al. discloses such an example showing how multiple charge pumps can be arranged to increase current of voltage output. It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Kwon's charge pump 421 as multiple charge pumps for the benefit of increasing the voltage or current output of the charge pump. Lee shows another applicable example. Generally, those of ordinary skill in the art know that a given component can be duplicated to enhance a parameter of just the individual component. Such does not produce unexpected results and is not seen as patentable. Claim 9 is otherwise obvious for the reasons above.

Claims 10 and 11 are obvious for the reasons above.

Kwon does not appear to disclose a specific configuration for filter 431 as recited in claim 12. However, these types of circuits overwhelming employ one or more bypass capacitors as the filters, not to mention that capacitors are the most fundamental form of filters. Nakanishi and Buhler et al. show just two examples of similar circuits employing one or more bypass capacitors as the filter. And again, those of ordinary skill in the art know that a given component can be duplicated to enhance a parameter of just the individual component. Such does not produce unexpected results and is not seen as patentable. In other words, replacing a single bypass capacitor with multiple bypass capacitors is not patentable. It would have been obvious to one of ordinary skill in the art at the time of the invention to implement filter 431 as one or more bypass capacitors for the benefit of implementing the filter. Kwon's lack of a specific implementation invites the combination. Claim 12 is obvious.

As pointed out in the 112 rejection above, claims 13-16 are not fully understood. As best understood, claim 13 defines complete duplications of the circuit defined in claims 9 and 11. Those of ordinary skill in the art know that a given circuit can be duplicated to provide multiple results. Such does not produce unexpected results and is not seen as patentable. Systems often require multiple reference voltages and/or frequencies. It would have been obvious to one of ordinary skill in the art at the time of the invention to duplicate the circuit defined in claims 9 and 11 for the benefit of providing a variety of voltages and frequencies. Claims 13-16 are otherwise obvious for the reasons above.

Claims 26-33 are obvious for the reasons above.

The combinations above perform the methods recited in claims 42-49

Claims 50-62, 67-69 and 72-76 are seen as merely an intended use of the present invention. Nevertheless, those of ordinary skill in the art are quite well aware that Ethernet transmitters/receivers (like most any other modern electronic devices) require reliable voltage and frequency references. Kwon discloses a circuit for clearly providing both. It would have been obvious to one of ordinary skill in the art at the time of the invention to implement an Ethernet transmitter/receiver utilizing the circuit taught by Kwon for the benefit of providing reliable voltage and frequency references as recited in claims 50-62, 67-69 and 72-76. Further more it would have been obvious to one of ordinary skill in the art at the time of the invention to design an Ethernet transceiver compliant with the well known IEEE 1000BaseT standards for the benefit of being

compatible with other IEEE 1000BaseT systems as recited in claims 62 and 76.

Claims 50-62, 67-69 and 72-76 are otherwise obvious for the reasons above.

Claims 78, 80, 82-84 and 86 are obvious for the reasons above.

Conclusion

9. In light of Applicants' amendments, the previous rejections are withdrawn. The current rejections are based on the Kwon reference, which was not of record at the time of the previous Office Action. After the previous Office Action, but prior to an interview with Applicants' representative on 7/20/05, Examiner courteously provided Applicants' representative with the Kwon reference. During the interview the structural differences between Applicants' Fig. 5 and Kwon Fig. 5 were discussed at length. Further discussed were ways in which the claims could be amended around the Kwon reference. Those discussions and Examiner's courtesy were apparently ignored and prosecution has been further delayed by this second non-final Office Action. How disappointing.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey S. Zweizig whose telephone number is (571) 272-1758. The examiner can normally be reached on Monday thru Wednesday 6:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on (571) 272-1740. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeffrey S. Zweizig
Primary Examiner
Art Unit 2816

JZ